

**REMARKS**

Claim 19 is canceled without prejudice, and therefore claims 9, 11, 13, 15, 17, and 20 to 30 are pending in the present application.

In view of the following remarks, it is respectfully submitted that the pending claims are allowable, and reconsideration is respectfully requested.

While the objections as to claims 19, 21 to 23, and 29 may not be agreed with, to facilitate matters, the following is respectfully submitted as to these claims:

As to claim 9, the subject language has been removed in claim 9, as now presented, so that it cannot be a product-by-process claim.

As to claim 19, to facilitate matters it has been canceled without prejudice.

Also, claims 21 to 23 and 29 have been rewritten so that they cannot be product-by-process claims.

Claim 11 was objected to as depending on a previously canceled claim.

Claim 11 now depends from claim, and it is therefore respectfully requested that its objection be withdrawn.

Claims 9 and 13 were rejected under 35 U.S.C. § 112, first paragraph, as to the written description requirement.

The Office Action conclusorily asserts that the specification does not disclose the feature of attaching a wire to the diode chip at a temperature greater than a silver-solder alloy melting point. While the rejections may not be agreed with, to facilitate matters, independent claims 9 and 13 have been rewritten so as to obviate the rejections. It is therefore respectfully requested that the objections be withdrawn.

Claims 9, 11, 20, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Background Information (characterized by the Office as “Applicant’s Admitted Prior Art” (“AAPA”) in the Final Office Action) in view of Japanese Patent Document No. 03/064,053 to Hayakawa (“Hayakawa”) and further in view of Japanese Patent Document No. 61/124,597 to Shiga et al. (“Shiga”).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28



U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

While the rejections may not be agreed with, to facilitate matters, independent claims 9 and 13 have been rewritten to better clarify the claim.

In particular, claim 9, as presented, provides for *a nickel layered wire contact soldered to the diode chip to form a second terminal of the press-fit diode, wherein only a section of the nickel layered wire contact that is not soldered to the diode chip is plated with silver*. It is respectfully submitted that the applied references do not disclose or suggest these features of the presently claimed subject matter.

The Final Office Action (at pages 5 and 6) conclusorily asserts that Shiga somehow supposedly teaches that only a section of the nickel layered wire contact remaining unexposed to solder is plated with silver. In fact, however, Shiga at best may only indicate that substrates having a surface layer of nickel or a nickel alloy may be first plated with silver or silver alloy, and then plated with solder (i.e. In, Zn, Sn, Pd, or alloys thereof). Thus, in Shiga, only a portion of the nickel-plated substrate may be plated with silver, and the solder (i.e. In, Zn, Sn, Pd, or alloys thereof) is then plated on top of the silver, so that the section of the nickel-plated substrate plated in silver is also exposed to solder.

Accordingly, Shiga does not disclose or suggest the feature in claim 9, as presented, in which only a section of the nickel layered wire contact that is not soldered to the



diode chip is plated with silver or the feature in claim 13 of immersing the wire shaft of the wire contact in an electroplating vat to silver plate only a section of the nickel layered wire shaft that is not soldered to the diode chip. The remaining applied references also do not disclose or suggest these features, nor does the Office Action assert otherwise.

Since none of the applied references discloses these features of claim 9, as presented, it is allowable, as are its dependent claims.

Claims 13, 15, 25 to 28, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of U.S. Patent No. 7,361,257 to Wang et al. (“Wang”) in view of Shiga and further in view of Hayakawa.

Independent claim 13 has also been rewritten to include the features of soldering a nickel layered wire contact having a wire head and a wire shaft to the diode chip to form a second terminal of the press-fit diode and immersing the wire shaft of the wire contact in an electroplating vat to silver plate only a section of the nickel layered wire shaft that is not soldered to the diode chip.

The Final Office Action (at page 8) also conclusorily asserts as to claim 13 that Shiga somehow supposedly teaches that only a section of the nickel layered wire contact remaining unexposed to solder is plated with silver. In fact, however, for the reasons explained above as to 9, as presented, neither Shiga nor the other applied references discloses the above-discussed features of claim 13, as presented, so that claim 13, as presented, is allowable, as are its dependent claims.

Claims 17 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Wang in view of Shiga in view of Hayakawa and further in view of U.S. Patent No. 3,844,029 to Dibugnara (“Dibugnara”).

Claims 17 and 24 depend from claim 13, as presented, and they are therefore allowable for at least the same reasons as claim 13, since the secondary Dibugnara reference does not cure – and is not asserted to cure – the critical deficiencies of the remaining applied references, as discussed above.

As further regards all of the obviousness rejections, to the extent, if any, that Examiner relies on any Official Notice, the Official Notice is respectfully traversed and it is requested that the Examiner provide specific evidence to establish those assertions and/or



contentions that may be supported by the Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, it is respectfully requested that the Examiner provide an affidavit and/or that the Examiner provide published information concerning these assertions. This is because the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (*See also* MPEP § 2144.03).

Withdrawal of all the obviousness rejections is therefore respectfully requested.

Accordingly, claims 9, 11, 13, 15, 17, and 20 to 30 are allowable.

### **CONCLUSION**

In view of the foregoing, it is respectfully submitted that all of the pending and considered claims are allowable. It is therefore respectfully requested that the rejections and objections be withdrawn. Prompt reconsideration and allowance of the present application are therefore respectfully requested.

Respectfully submitted,

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